VIEW-i

1 and 2 channel Black Box with the Lock function
KPB-001KL/001KLG/002KLG/002KLGIR
User Manual

Please read carefully before using this product.

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※ Warranty

1. Liability

1. This product was designed to assist you in driving safely by recording driving information and data for driver reference.

2. This product does not guaranteed to record information on every accident.
- A minor force will not trigger the G-Force sensor to activate Event Recording. Therefore the user must use the Manual Record Button located on the device itself.

3. This product is not liable for any data loss caused by physical damage to the product or it accessories.

4. The manufacturer has no liability for any injury or damage to property associated with the use of this product.

5. The manufacturer limits any and all liability to the exclusive remedies of product repair or replacement at the manufacturer's discretion, to the fullest extent permitted by the law.

2. Precautions (Device)

Do not open/fix/alter this device
Any customer alterations will void the Warranty.

Do not use any accessories other then those included with the recorder
The use of any additional accessories will void the product warranty.

Do not connect the device directly to car's battery
Connecting the device directly to the car's battery will void the product warranty.

Use this product only under the recommended power guidelines
Using this product in alternative power situation will void the product warranty and could result in fire.

Remove all substance from the lens, including the plastic film, that may affect the quality of the recording Any obstruction may degrade recording quality.

Do not expose this product to extreme temperatures (high or low)
This product will be damaged if it is exposed outside recommended working temperature.

Do not operate product while driving
Only operate in safe environments

Only install this product within the recommended installation area
It could result in poor GPS reception.

If product is physically damaged during a fatal accidents, it may not record any data

During sudden lighting changes, such as entering a dark runnel, alley, or turning toward direct sunlight on a very bright day, video recording may be compromised due to the limitations of video technology

Check the product frequently to ensure that the camera angle is properly adjusted
After violent force is applied to the vehicle or product, the camera angle may be altered resulting in poor picture quality.

Do not spray automobile cleaning products directly to product
Product will be damaged if directly exposed to cleaning products.

2. Precautions (SD Card)

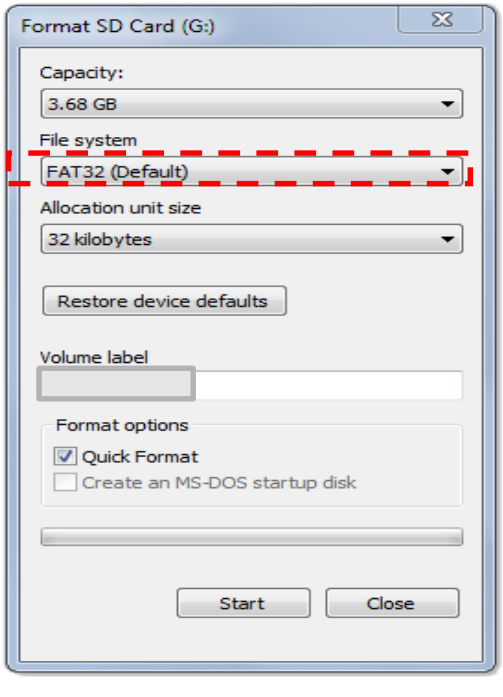
Only use SD memory card from the manufacturer
Product may not function correctly if un-tested SD memory cards is used.

Do not open/fix/modify SD memory card
Product could be damaged and warranty does not cover such damage.

SD memory card need to be replaced with a new product once it reaches end of product life Product might malfunction if SD card's writing speed decreases.

Backup from SD memory card to HDD or CD if any data needs to be preserved
Data might get lost due to memory corruption in SD memory card.

Check SD memory card's data regularly to check its operation
[NOTE] Format SD memory card at least once a week for optimal performance.



HOW TO FORMAT SD CARD
1. Insert SD Card to user PC
2. Select [Start] -> [My Computer]
3. Select SD card driver and right click and select "Format"
4. Select "FAT32"
   If "FAT" format is to be selected, device will not function normally.
5. Click "Start" button

Do not remove SD memory card during product operation while power is on
Product or SD memory card could be damaged.

Manufacturer is not liable for SD card's recorded contents outside SD card limited product life.

3. Product Package

Please confirm below package list in the box

Device

SD Card(Option)

Windshield Cradle & Double Side Tape

Power Cable

User Manual (Includes PC Viewer S/W)

Wire Clip x 4 ea

IR Lighting Module (KPB-002KLGIR Model Only)

TV-out Cable (Option)

TV-out cable : Display which doesn't have composite port must be adjusted to the correct display format.

Product package may change for product enhancement without any notification.

4. Functions

Function	Description
Constant Recording	**Records everything during device power on status** [NOTE] If memory exceeds its capacity, device deletes oldest file to make room for new recordings. Therefore, if user wants to keep the old recordings, user must backup the recordings before they are automatically overwritten.
Event Recording	**When device detects an impact force it automatically saves the files15 seconds before and after the impact as an event file.** (Reference: 7. Product Manual) [NOTE] A maximum of 200 Event files can be stored. When 160 Event files are saved, device alerts sounds(beep-beep-beep) to warn the user. If 200 event files are saved, the warning alerts sound (tee-lee-lee) and starts overwriting oldest files to make room for new Event files. Therefore, if user wants to keep the old Event files, the user must backup the recordings before it is automatically overwritten.
Audio Recording	**Supports audio recording with on/off button** (Reference: 5. Features)
JPEG Capture	**Supports JPEG capture** (Reference : 7. Product Manual)
GPS Sensor	**Internal GPS records time/speed/route information.** (KPB-001KLG, 002KLGIR model only) These information can be checked with PC Player (Reference : 8. PC Player Manual) [NOTE] GPS needs to be connected to Satellite before recording
G-Sensor	**Internal G-sensor records quick start/stop/curve information** This information can be checked with PC Player (Reference : 8. PC Player Manual)
TV-out	**User can check recorded files to nearest display with TV-out function** (Reference : 5. Features)

4. Functions

Function	Description
View-i PC Player	**View-i PC Player can be used to check recorded videos on SD card**
Google Map Sync	**View driver's route travelled when using the View-i PC Player** [NOTE] The computer needs to be connected to the internet to view the vehicle position on a map on the View-i PC Player.
G-Sensor Graph	**View G-force data with View-i PC Player**
ECO-Drive Report	**Driver driving patterns can be diagnosed using GPS & G-Sensor data.** This data will coach drivers to develop safer driving habits [NOTE] Functions are limited for non-GPS KPB-001KL model.
Event Report	**Creates reference report detailing the accident which may be helpful to police or insurance company** [NOTE] Functions are limited for non-GPS KPB-001KL model.

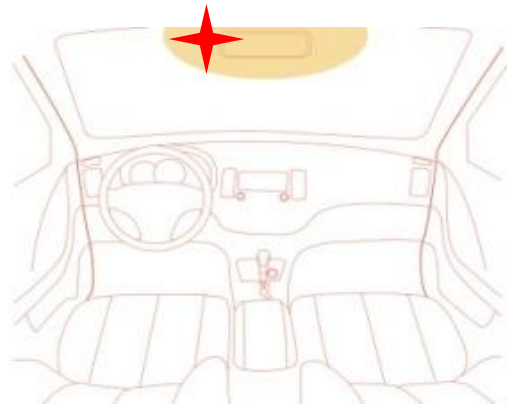
5. Features

#	Name	Description
①	Power Port	DC 12V/DC 24V
②	Internal GPS	GPS
③	Front Camera	130M Pixel CMOS Image Sensor
④	Power Switch	Device Power on/off switch
⑤	Mic Switch	Mic on/off switch
⑥	Buzzer	Status buzzer
⑦	Manual Recording	User can activate Event Recording
⑧	Memory Format	User can format inserted SD card
⑨	Video Replay/ JPEG Capture	User can replay recorded videos User can capture JPEG image
⑩	LED	Status LED for Power status, GPS reception, Mic status, Recording status
⑪	Rear Camera	1.3M Pixel CMOS Image Sensor
⑫	SD Card Slot	SD memory card slot
⑬	Key	CAM Lock Key
⑭	IR Lighting	IR Lighting for Rear Camera / IR Model Only

6. Installation

6.1 Recommendation

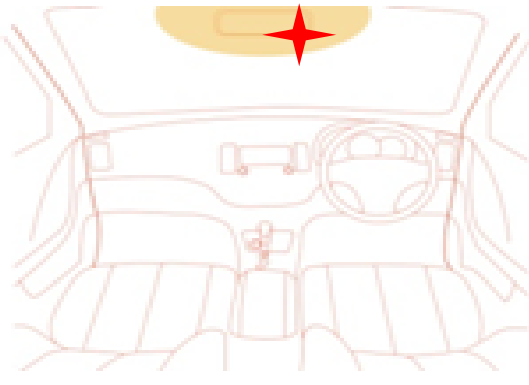
For Sedans and SUVs, install the device near the rear view mirror to the driver side where GPS and Camera does not have physical interrupts.



6.2 Placing the Cradle

Remove tape cover and place according to the diagram in 6.1 with open side up.

[NOTE] If device was installed any place other then what is recommended in diagram 6.1, it will prevent optimal functioning of the GPS reception and camera.



[TIP] Please wipe the wind shield clean before placing the cradle.

6. Installation

6.3 Installing the product into the Cradle

1. Insert SD memory card to the product
2. Hold product so camera part is at the bottom and then slide it into the cradle from top to bottom until it makes a clicking sound and locks into position.
3. Connect the power cable from the unit and clip the wires into the cable clips supplied
4. Adjust the camera angle to your preference
   [TIP] Use TV-out cable to connect to a display to check the actual recording view is correct. You do not want the bonnet to take up a large part of the viewing picture.
5. Remove the tape cover.
6. Attach IR lighting facing the same direction as Rear facing Camera.

KPB-002KLGIR model :

[NOTE] If direction of the Rear Camera and IR Lighting does not align, Rear Camera recordings might not record correctly. Please note vibrations and humidity of the vehicle might detach the IR Lighting if not stuck properly.

6.4 Confirmation

1. Check to see that the SD card is correctly placed into the device and power switch is on
2. Start the car engine and check power is correctly connected to the device.
3. Check Red LED is on following with Blue and Orange LED blinks.
4. Listen for a beep sound of 1CH products, 2 beeps for 2CH products and Orange LED to stop blinking (booting complete, recording starts).
5. GPS connection can be confirmed as follows:.
   If Blue LED blinks on and off, GPS reception is not complete and still in search mode.
   If Blue LED is on constant, GPS reception has been made.

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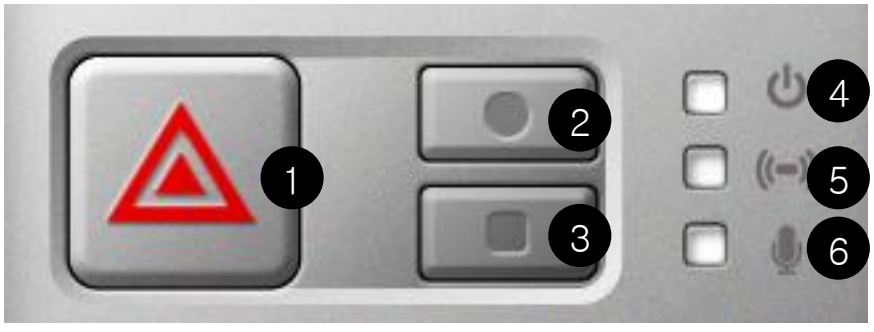


#	Name		Recording Mode	Replay Mode(TV-OUT)
①	Manual Recording Button		Manually start event recording If button is pressed, device will make "tic-tic" sound and blue and orange LED will blink quickly.	Same as Recording Mode
②	Memory Format Button	Short Press	No function	Previous File
		Long Press	Hold for 8 seconds to start formatting SD card after a beep. 2 beeps will sound after completing the format.	Change folders
③	Video Replay / JPEG Capture	Short Press	JPEG capture	Next File
		Long Press	Press for more then 2 seconds, device will change to Replay Mode.	Press for more then 2 seconds, device will change to Recording Mode
② ③	Rear Camera ON/OFF Button		[Applies for on/off both] Press #2 button followed by #3 button. If rear camera is successfully turned off, device will make 3 beeps. Device will make 5 beeps if rear camera is turned backed on.	
④	Power LED		Red LED, Displays Power On/Off Status	
⑤	Function LED		Blue LED, Displays GPS Reception Status	
⑥	Mic LED		Orange LED, Displays Mic On/Off Status	

7. Product Manual

7.1 Buzzer/LED Scenario

Name	Buzzer	LED
Booting Status	1 beep for 1CH products 2 beeps for 2CH products	Red LED : On Blue LED : Blink Orange LED : Blink
SD Card Insert Status	If SD card is not inserted, Device will make a beep sound every second till SD card is inserted.	Red LED : On Blue LED : Blink Orange LED : Blink
Constant Recording Status		Red LED : On Blue LED : Operate according to GPS status Orange LED : Operate according to Mic status
GPS Reception Status		Red LED : On Blue LED : Blink = search / On = GPS connect Orange LED : operate according to Mic status
Event/Manual Recording Status	Short "tic-tic"	Red LED : On Blue LED : Blink (Fast Blink = 0.5 sec) Orange LED : Blink (Fast Blink = 0.5 sec)
Mic On/Off	Short "tic"	Red LED : On Blue LED : Blink Orange LED : On/off according to Mic status
Power Off Status	"Beep~"	Red LED : Off Blue LED : Off Orange LED : Off
Event/Manual Recording Memory Full Alert	80%:"Beep Beep Beep ~ Beep Beep Beep" 100% : "Tee-lee-lee"	Red LED : On Blue LED : Operate according to GPS status Orange LED : Operate according to Mic status

8. PC Player Manual

This part of the manual explains the use of View-i PC Player, video and utility player.
With View-i PC Player, user may view the contents of the products.
* Windows Media Player and other player may show videos but G-Sensor, GPS, MAP, Report functions can only be used in View-i PC Player.

8.1 System Requirement

Item	Description
Operating System	Window XP, Windows Vista, Windows 7
CPU	Pentium 4 / 2.0Ghz Processor or above
RAM	More than 2GB
Free HDD Space	More than 1GB
Display	More than 1024 x 768 pixels

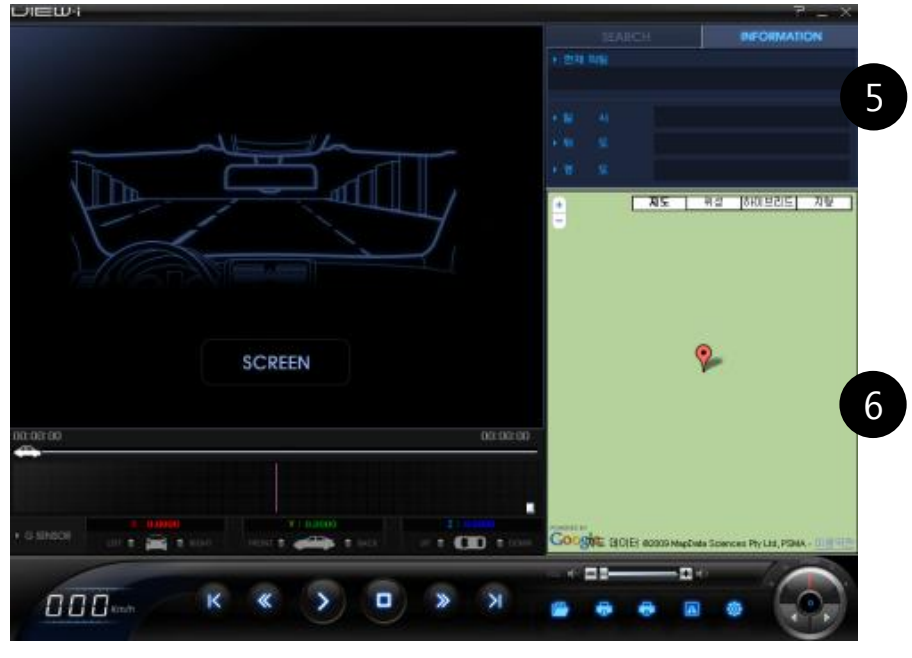
8.2 Installing the Software

1. Connect SD card into the computer
2. Click [Start] and enter [My Computer]
3. Select SD card drive and double click "Setup.exe" file in the product folder
4. Follow installation instructions
6. Select [Start]->[Programs]->[View-i]-> View-i PC Player to start the application
* Check http://www.view-i.co.kr for latest View-i PC Player updates.

8. PC Player Manual

8.3 View-i PC Player - 1 Channel

Double click on "View-i" icon to view the below screen. (KPB-001KL/001KLG)



#	Name	Description
①	Video Screen	Video play screen of designated video file
②	G-Sensor Graph	G-sensor data of video screen for user analysis
③	Speed-o-meter / Menu	Display driving speed (KPB-001KLG) Button listing for video and menu control
④	File Search	Search function for listed video files
⑤	File Information	Displays file name and recording type Displays GPS information (KPB-001KLG)
⑥	Google Map	Displays current position of the video on Goggle map (Internet connection required : KPB-001KLG)

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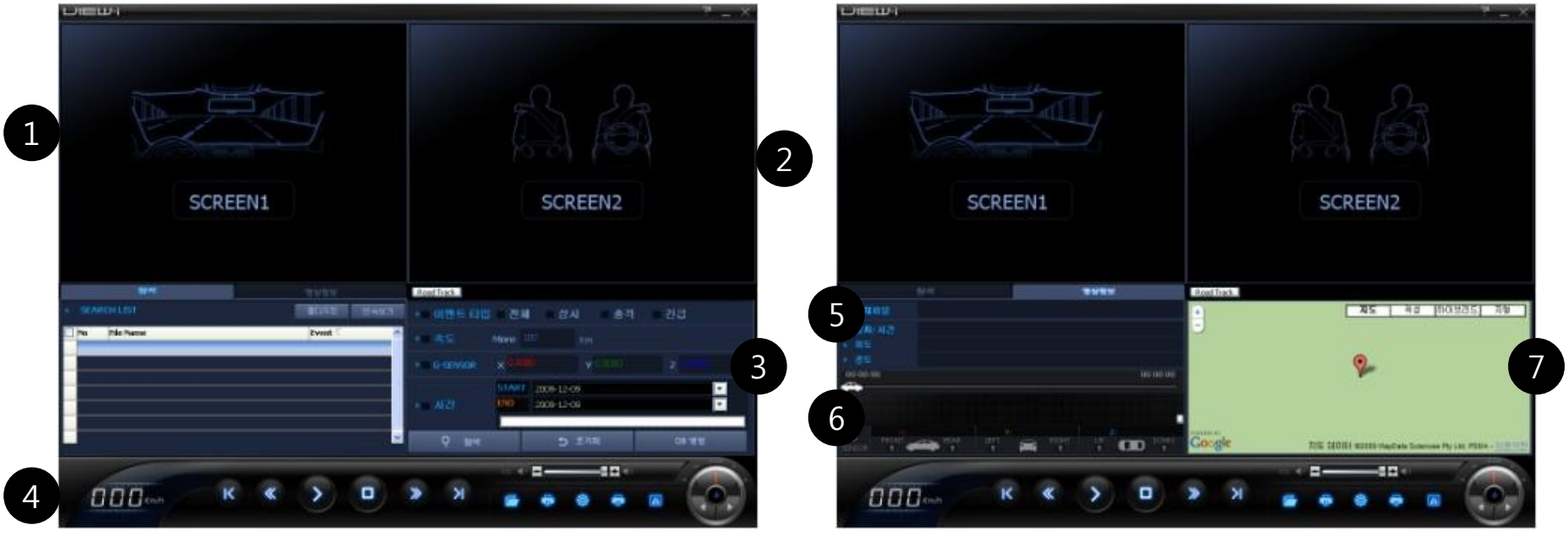
8.4 View-i PC Player - 2 Channel

Double click on "View-i2" icon to view the below screen. (KPB-002KLG/002KLGIR)



#	Name	Description
①	Front Video Screen	Front video play screen of designated video file
②	Rear Video Screen	Rear video play screen of selected front video file
③	File Search	Search function for listed video files.
④	Speed-o-Meter/ Menu	Display driving speed Button listing for video and menu control
⑤	File Information	Displays file name and recording type Displays GPS information
⑥	G-Sensor Graph	G-sensor data of video screen for user analysis
⑦	Google Map	Displays current position of the video on Goggle Maps (Internet connection required)

8. PC Player Manual

8.5 Buttons

Button	Description	Button	Description
	Previous File		Open 1 file
	Rewind		Print Screen
	Play		ECO-Drive Report
	Pause		Event Report
	Stop		Setting
	Fast-forward		Play Speed Control
	Next File		

8.6 Control Bar

Volume Control : Video volume control with mute function

8. PC Player Manual

8.7 Open File / Play

- Recorded contents can be found inside device's SD card.
  Constant files can be found under "NORMAL" folder / folder name under date/hour.
- Event files are made when G sensor settings are exceeded and can be found under "EVENT" folder.
- Move the recorded videos to user computer for best performance.
  (video play navigation, search, etc)

1. Opening single file and playing
   Click on the button located lower part of View-i PC Player.
   Navigate to the folder to find the wanted play contents and double click on the video file to play.

2. Opening a folder and playing
   - Click on "Folder Open" button on the top right of Search screen.
   - Navigate to the folder of user choice and select "OK" button
   - When the file list appears in the Search screen, check the checkbox in the left of the file name and click on "Chain Play" to play the videos.

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8.8 File List Screen

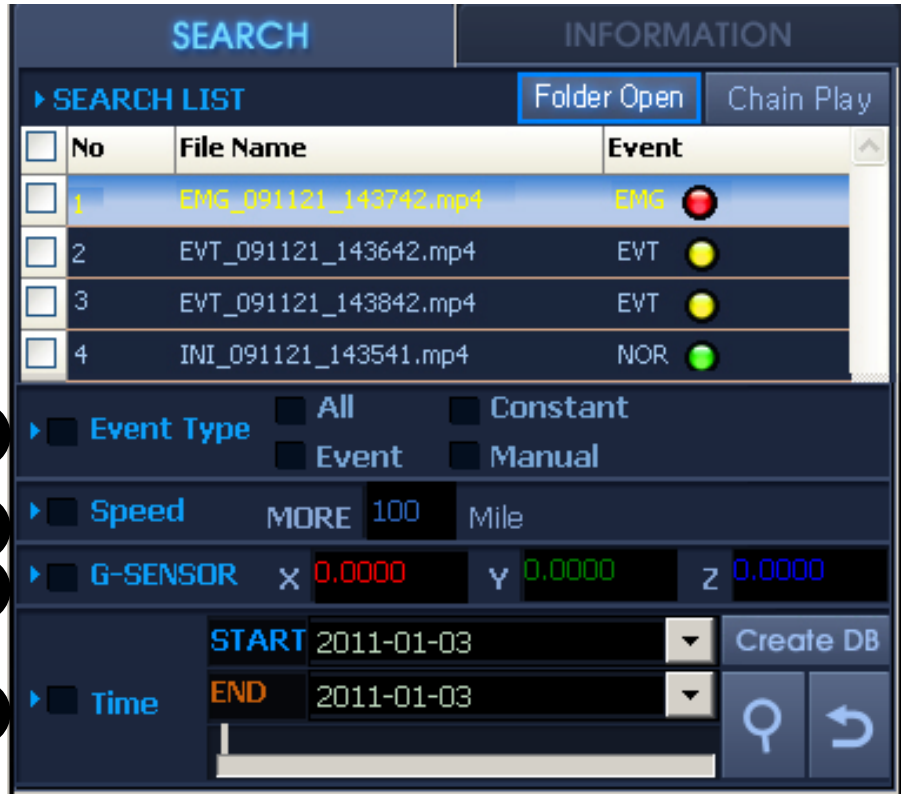
#	Name	Description
①	Folder Open	Open a folder with recorded videos
②	Chain Play	Play button for continual playing of checked listed files
③	File Name	File name consist of date/hour of recordings. EVT_090919_201518.mp4 -> EVT or INI : Recording type -> 090919 : 09/09/19 (date) -> 201518 : 20:15:18 (time)
④	Event Type	Displays recording type. (EVT : Event / EMG : Manual NOR : Constant)

- File can be organized by clicking on the top File Name, Event titles.

#	Name	Description
⑤	NOR	Constant recording files display as "NOR"
⑥	EVT	G-Sensor triggered recording files display as "EVT"
⑦	EMG	Manual button triggered recording files display as "EMG"

8. PC Player Manual

8.9 Search - DB



1. Import play list to the Search screen
   (Reference : 8.6 Open File / Play)
2. Click on "Create DB" to make database
   *Database must be created before searching
3. Select search option and click "Search" button
4. Searched list will appear in Search screen
6. Click on "Chain Play" to play searched file

#	Name	Description
①	Event Type	Select recording type to filter videos with selected recording type
②	Speed	Input speed value to filter videos above selected speed value
③	G-Sensor	Input X/Y/Z G-sensor values to filter videos above selected G-sensor value
④	Time	Input time value to filter videos within time section

8. PC Player Manual

8.10 Play Screen

KPB-002KLG,002KLGIR

KPB-001KL,001KLG

#	Name	Description
①	Video Screen	Video play screen of designated video file
②	G-Sensor Screen	G-sensor data of video screen for user analysis
③	Speed-o-Meter / Menu	Display driving speed (except KPB-001KL model) Button listing for video and menu control
④	Information Screen	Displays file name and recording type Displays GPS information (except KPB-001KL model)
⑤	Google Map	Displays current position of the vehicle (Internet connection required : except KPB-001KL model)

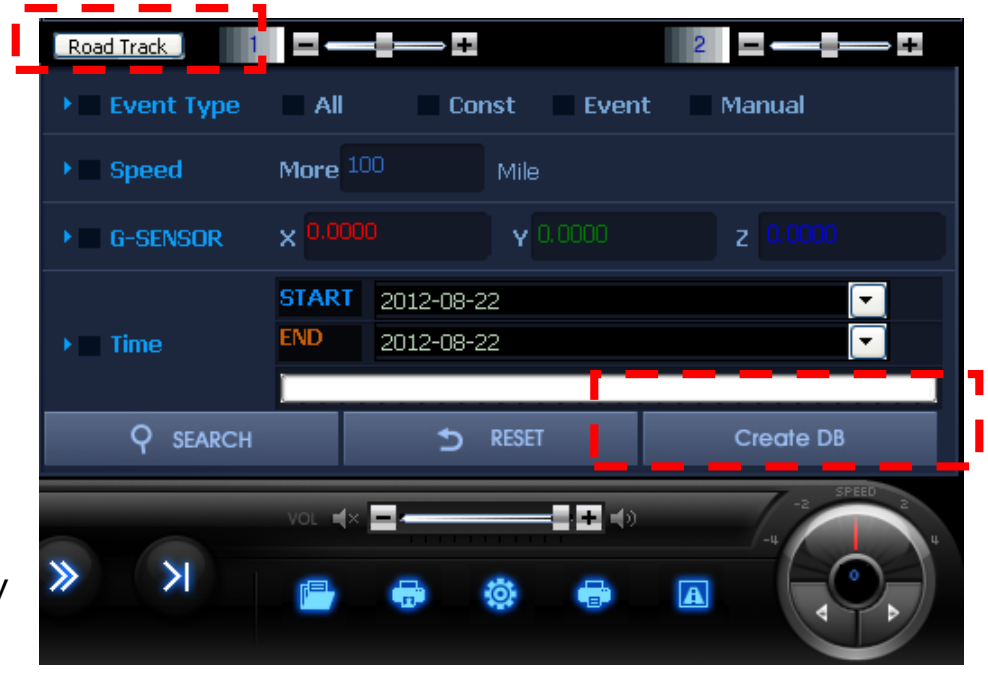
8. PC Player Manual

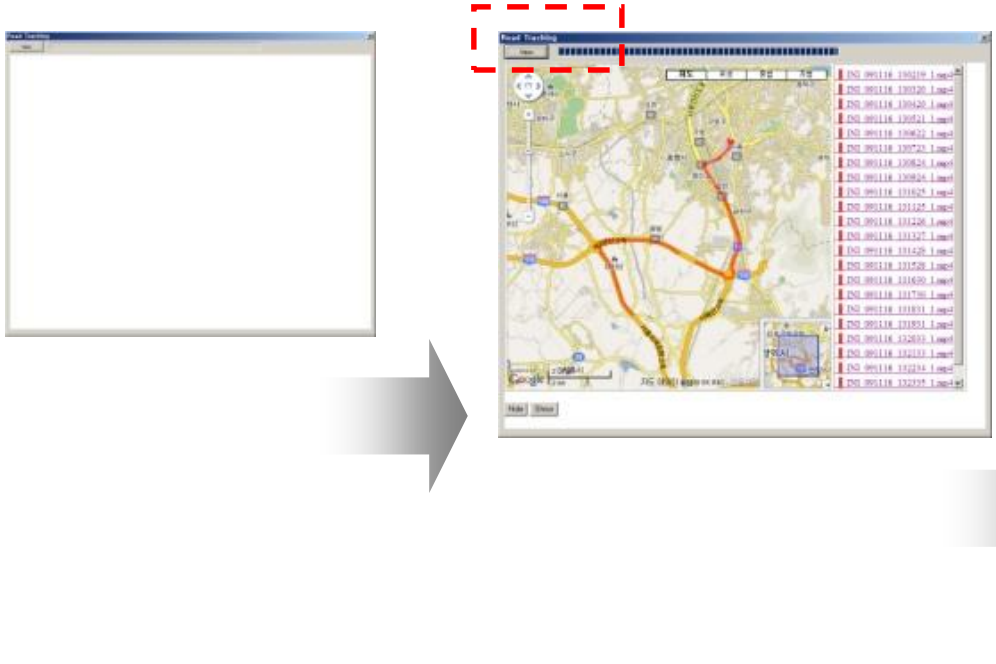
8.12 Road Track®

1. Road Track™ shows driving path of selected files. In order to use this function, user must first call in the video files and create a database first.
2. After creating the database, click on Road Track button.

3. After new map screen appears, press View button.

4. Use Hide button or Show button to display or hide driving route in the Google Map.

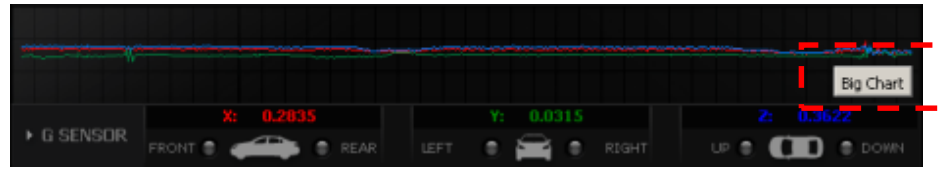


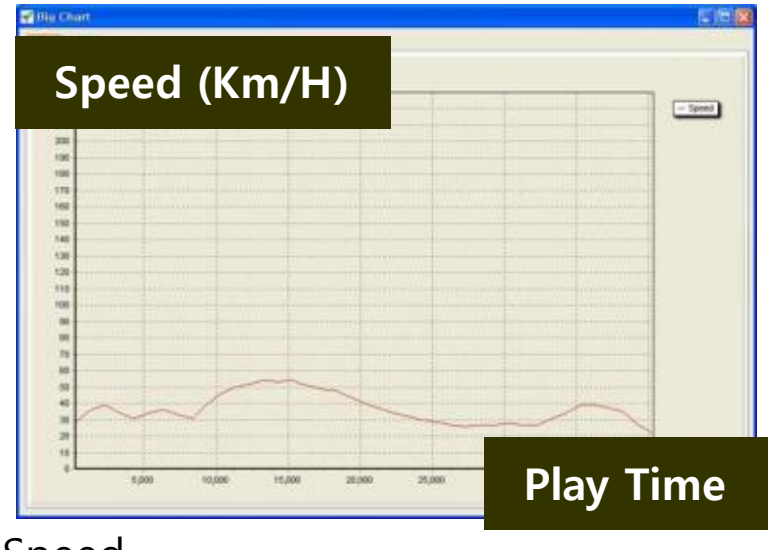


8. PC Player Manual

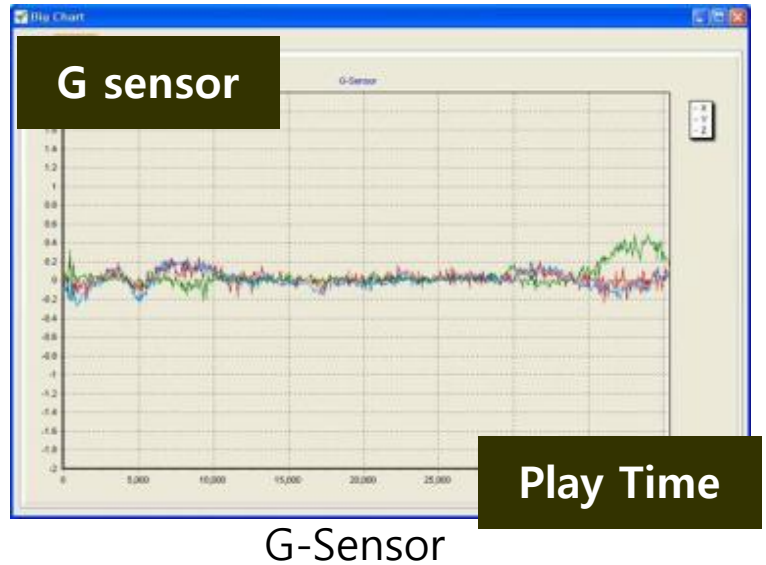
8.13 Speed/G-Sensor

1. View-i PC Player supports detailed view of speed and G-Sensor data.
2. Click on "Big Chart" button in the G-sensor screen to display below pop-up screens.





Speed
Supported by KPB-001KLG, 002KLG, 002KLGIR



G-Sensor

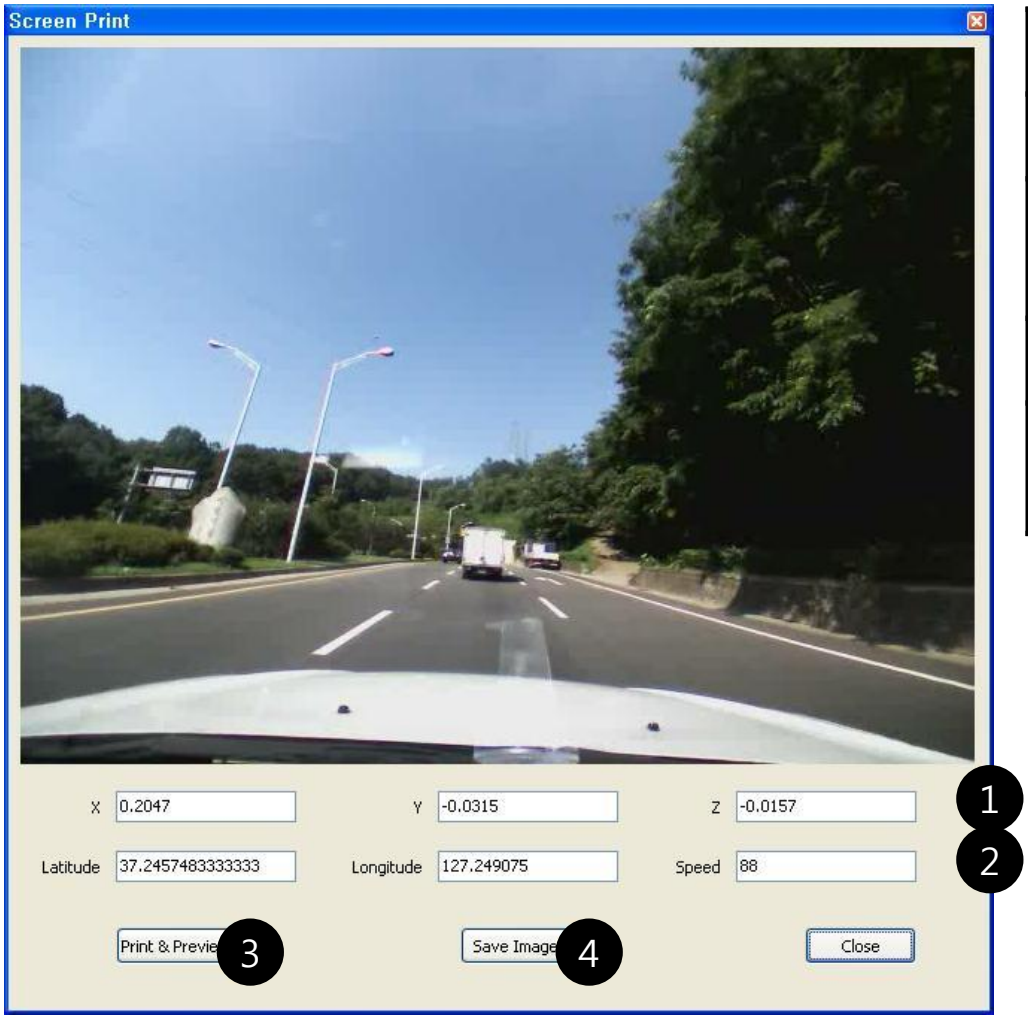
G-Sensor data can be used for road conditions or driver's driving pattern analysis.

Axis	Description
X-Axis	Display Vehicle's X axis movement - Quick Start / Quick Stop
Y-Axis	Display Vehicle's Y axis movement - Quick Turns
Z-Axis	Display Vehicle's Z axis movement - Up/down movement

8. PC Player Manual

8.14 Screen Capture Print/Save

1. View-i PC Player supports screen capture function which can print / save specific screen of user choice.
2. Click on button to view the screen below.

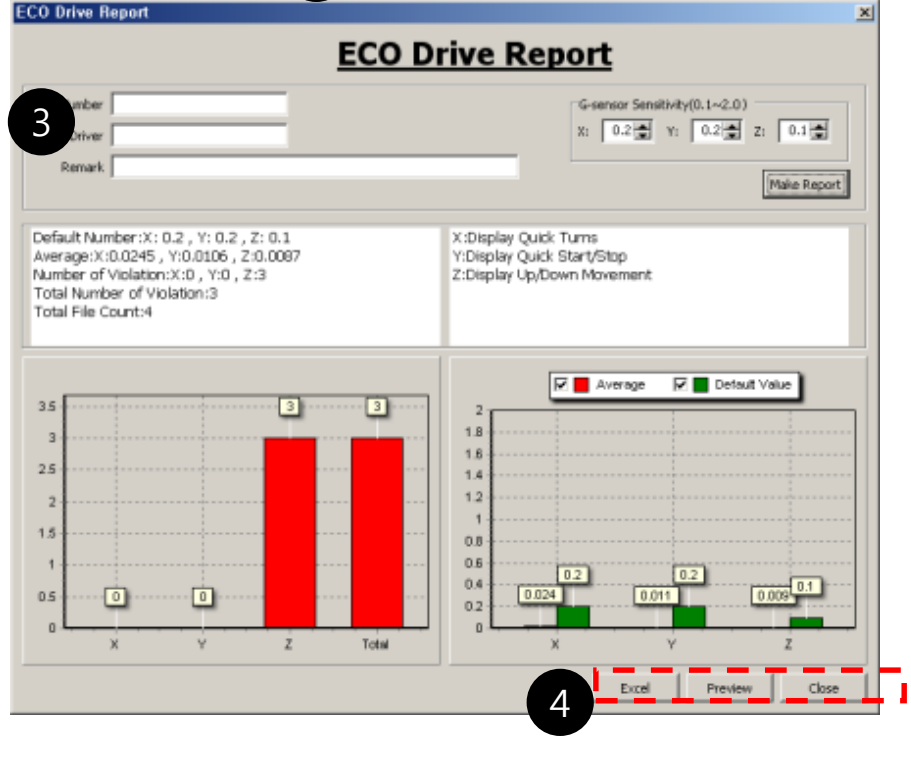


#	Description
①	G Sensor Data
②	GPS Data (except KPB-001KL model)
③	PRINT button for image print
④	SAVE button for create JPEG image file

8.15 ECO-Driver Report

1. Create database from user selected video files.
2. Click "ECO-Drive Report" button.

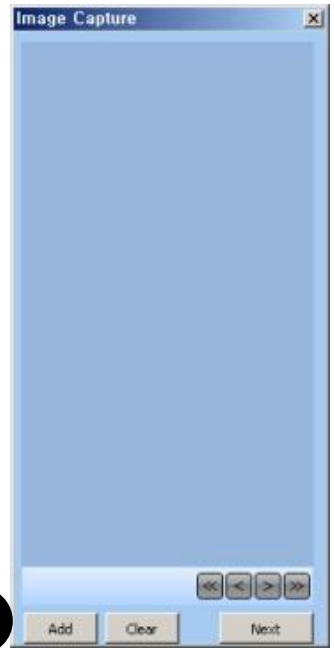
3. Input basic user information and click "Make Report" button to create a report.
4. Use "Excel" and "Preview" button to save the report to a file or print.



8. PC Player Manual

8.16 Event Report

1. Click on "Event Report" button to retrieve the image capture screen.
2. Click on the "Add" button to save 4 different video screen and click on "Next" button.
3. Use "Clear" button to remove selected screens.
4. Input basic information and click on "Preview" button to create the report.



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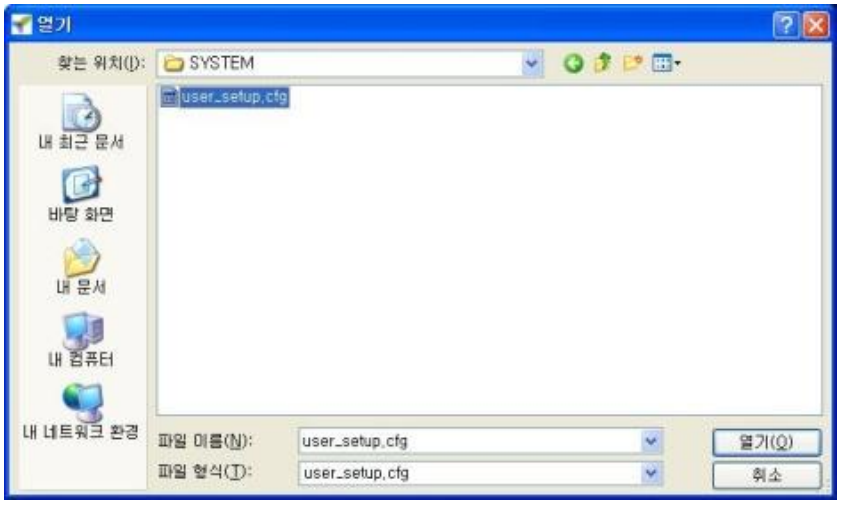
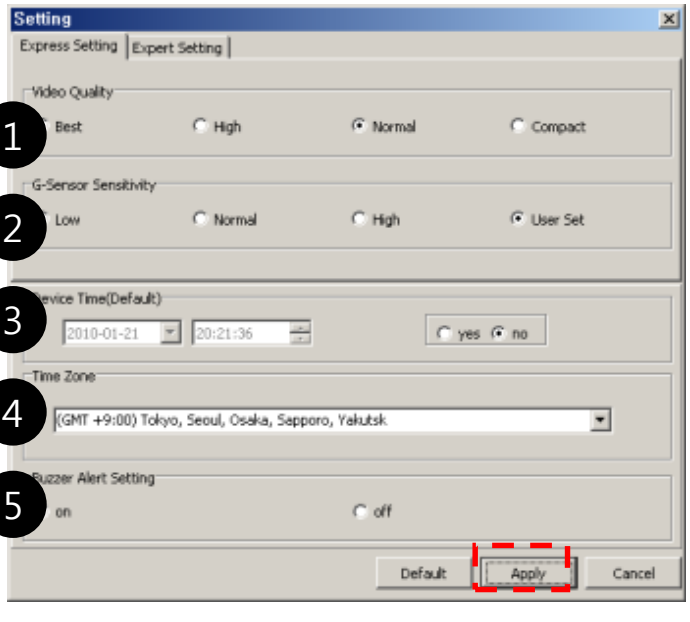
8. PC Player Manual

8.17 Setting - Open



1. Click on button
2. Select "system/user_setup.cfg" file in your SD Card.
3. Click on "Open" button.

8.17.1 Setting - Express



1. Express setting allows for quick and easy device configuration.

#	Name	Description
①	Video Quality	Video quality setting
②	G-Sensor Setting	G-Sensor sensitivity select (Low = sensitive / High = Dull)
③	Device Time	KPB-001KL user must manually set the time
④	Time Zone	Select user time zone
⑤	Sound Setting	Buzzer on/off

2. Click "Apply" button and re-insert SD Card to the device to save the changes.

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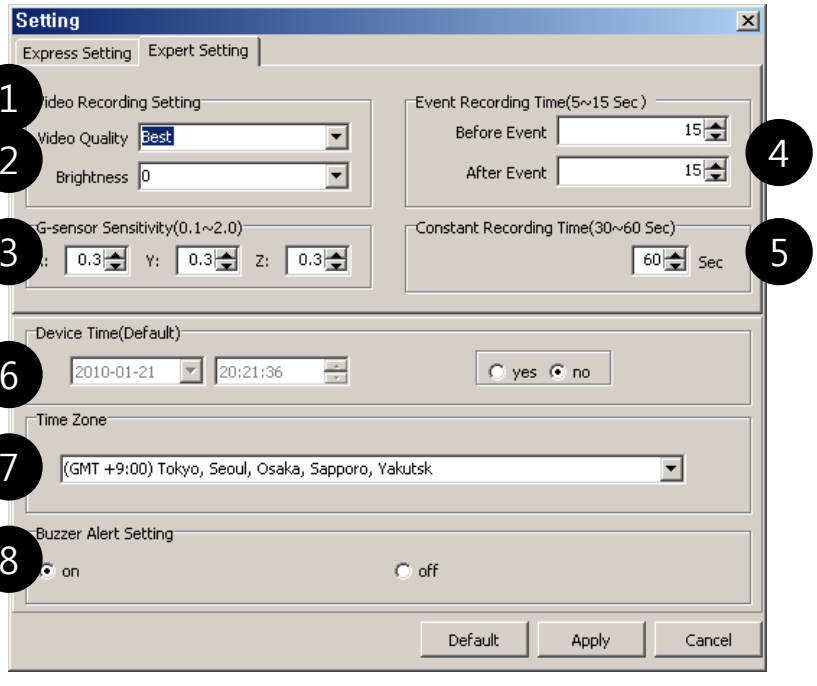
8.17.2 Setting - Expert



#	Name	Description
①	Video Quality	Best : 1.3M@VGA 17fps High : 1.3M@VGA 20fps Normal : 0.3M@VGA 30fps Compact : 0.3M@QVGA 17fps
②	Brightness	(Dark)-4 ~ +4(Bright)
③	G-Sensor Sensitivity	0.1~2.0 (Low=sensitive / High=dull)
④	Event Recording Time	0~15 sec for before and after Event triggers
⑤	Constant Recording Time	1 channel : 30sec~1min 2 channel : 30sec~2min
⑥	Device Time	Select user local time
⑦	Time Zone	Select user time zone
⑧	Buzzer	Buzzer on/off

1. Do use Express setting unless you are an advanced user.
2. Click "Apply" button and re-insert SD Card to the device to save the changes.

10. Specification and Certifications

List	Description
Camera	1.3M Pixel CMOS Image Sensor - 1Ch 1.3M Pixel CMOS Image Sensor - 2Ch
View-Angle	Front View angle 120° / Rear view angle 149 °
GPS	Internal GPS (except KPB-001KL)
G-Sensor	Internal G-Sensor
Video	1CH : MPEG4 1.3M Pixel 20fps(max) / MPEG4 0.30M Pixel 30fps(max) 2CH : MPEG4 1.3M Pixel 10fps(max) / MPEG4 0.30M Pixel 15fps(max)
Audio	Internal Mic, AAC Codec
Storage	2GB SD Card (Max 16GB – Class 10 Optional extra)
PC Viewer	View-i SSL PC Player, Windows Media Player, and more
Voltage	12V~24V
Size	52(W) x 94(H) x 18(D)mm without CAM Lock
Weight	KPB-001KL : 67g / KPB-001KLG : 76g / KPB-002KLG : 80g / KPB-002KLGIR : 96g (without CAM Lock key)
Manufacturer	Made in Korea
Certification	KCC / FCC / CE / / RoHS

Warranty

Product	1 and 2 channel Black Box with the Lock function		
Model	KPB-001KL / KPB-001KLG / KPB-002KLG / KPB-002KLGIR		
Name		Serial Number	
Phone		Email	
Address			
Purchase Date		Dealer	

Guarantee

1. One year warranty period on the product commencing on the date of purchase.
2. Warranty is void if the unit has been opened by anyone other than the supplier approved repairer.
3. Warranty does not cover damage caused by fluid ingress, heat or physically damage.